

REMARKS

Applicant thanks the Examiner and the Examiner's supervisor for the interview granted July 1. As a result of language additions to the independent claims discussed during the interview to avoid the Section 112, paragraph 2 indefinite rejection, new independent claims 29 and 36 are presented containing the language discussed during the interview to avoid the Section 112, second paragraph rejection.

With respect to the prior art rejection of previous claims 17-28 under 35 U.S.C. §103 as unpatentable over Wach '970 in view of Daikuzono '280, the following is noted. Wach is an optical fiber. The optical fiber can convey light including laser light. Wach is not a laser having pump light input into a pump fiber with laser light then arising in the fiber core with the laser light then exiting. In the various portions of Wach cited in the Office Action, none of these portions of Wach relate to the reduction of pump fiber light in a pump fiber to reduce pump fiber light exiting where the laser light exits at the end of the fiber core. Wach only discloses optical fibers for conveying light - not for creating laser light. At column 11, lines 11-58, light fibers are described which convey light. The fiber end face is surrounded by a medium with a known refractive index to ensure that the light is contained within the fiber. There is no discussion of reducing pump fiber light in a laser resonator system which creates laser light.

Column 13, lines 43-59 describes a large-core fiber where source light is reflected from the fiber's end face before the light exits the fiber. This disclosure has nothing to do with reducing pump light in a laser resonator system which creates laser light.

Column 22, lines 40-60 describes a flat faced optical fiber 100 having a core 110, a cladding 115, and a coding 120. A cone-shaped end face is provided. There

is no disclosure of a method or system where a pump light is input into a pump fiber so that laser light arises fiber core and a portion of sheath is removed to reduce exiting pump light where the laser light exits.

Column 29, lines 49-65 describes a fiber bundle but discloses nothing about pump light.

Column 45, lines 19-38 discloses interference light incident on a filter 6125 which passes through the filter along with a small portion of laser light 6135, 6136. The unwanted light 6135 must be eliminated from the signal path. A cavity surrounding the filter 6125 is filled with optically transparent material and a light absorbing section 6145 is provided on the distal side of the transparent section 6140 to trap and attenuate unwanted light 6135. Nothing is disclosed whatsoever of a pump light, a pump fiber, a fiber core as a laser resonator in which laser light arises, and no reduction of pump light where laser light exits by removal of a portion of the sheath.

Column 50, lines 44-55 disclose ring fibers 6380 which are stripped of protective coatings/buffers 6335 near the distal tip such that transmission of appropriately angled desired light 6340 between the fibers 6375, 6380 is not encumbered. This has nothing to do with pump light entering a pump fiber, laser light arising in a laser resonator fiber core, and a portion of the sheath at the end of the pump fiber being at least partially removed to reduce pump light exiting where the laser light exits.

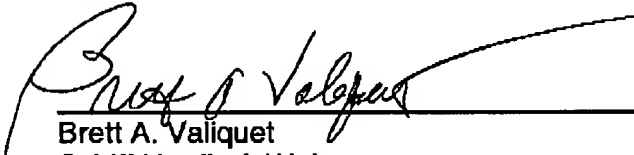
Column 69, lines 39-43 discloses other factors influencing design of a fiber laser include the desired light pattern on a light exit side of the filter and the spectral ship associated with angle of light incidence. This has absolutely nothing to do with

reducing pump light at a laser light exit in a system employing pump light input into a pump fiber having a laser resonator fiber core in which laser light arises.


The secondary reference of Daikuzono was apparently cited for its teachings of normal prior art fiber lasers. Of course, Applicant admits that fiber core laser resonators are old in Applicant's own specification. See, for example, the first paragraph of Applicant's specification. However, in such prior art laser resonator systems, the outer sheath was not at least partially removed at the end of the pump fiber to solve the problem of undesirable remaining pump light from exiting where the laser light exits from the fiber core. Thus, the combination of Daikuzono, which does not teach any of these features, with Wach could never suggest the invention.

Allowance of all claims in the case is respectfully requested.

Respectfully submitted,


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I hereby certify that this correspondence is being transmitted by facsimile on **July 1, 2003** by transmittal to Examiner Ruiz in Group Art Unit 2828 Telefax no. (703)-746-3056.

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